

**Work Order ID: 80061****\*80061\***

Page 1

February-09-12 12:48:16 PM

Item ID: D2500-1-190

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Ext'n - 'I' Beam Tube 4"

Start Date: 09/02/2012 Start Qty: 80.00

**\*80\***

Cust Item ID:

Required Date: 23/02/2012 Req'd Qty: 80.00

**\*80\***

Customer:

Reference:

Approvals: Process Plan: M.L.JDate: 12/02/09

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2500

Rev H

100

0.00

**\*100\***

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 16161

a) Extrude as per Dwg D2500

b) Material: 6061-T6 (QQ-A-200/8)

c) Minimum yield tensile strength = 35 ksi

d) Minimum ultimate tensile strength = 38 ksi

e) Minimum elongation = 8%

f) Order at 190" long

g) Bon L Canada Inc. tool # 897105

h) To be packed per DSK 066

i) Pull test to ASTM standard B221 required.

j) Material certification is required

12-02-9

110

0.00

**\*110\***

Receive &amp; Inspect for Damage &amp; Mat'l Certs

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

12-02-9 (80)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 80061

\*80061\*

Page 2

February-09-12 12:48:16 PM

Item ID: D2500-1-190 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Ext'n - 'I' Beam Tube 4"  
 Start Date: 09/02/2012 Start Qty: 80.00 \*80\* Cust Item ID:  
 Required Date: 23/02/2012 Req'd Qty: 80.00 \*80\* Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
*120*									
QC									
Quality Control	Memo	0.00							
	Check Pull test per Dwg D2500 for compliance page attached. Check hardness with Webster tester								
	* Pull Qty + 15 Pcs for inspection *								
130	Identify as per dwg & Stock Location: <u>BACK HALL</u>	0.00							
*130*									
Packaging									
Packaging	Memo	0.00							
140	QC21- Final Inspection - Work Order Release	0.00							
*140*									
QC									
Quality Control	Memo	0.00							

51710362

80

51710362

80 2/15 12-3-6

12/3/12

12-03-9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries

# Picklist Print

February-09-12 12:48:20 PM

Page 1

• Work Order ID: 80061

\*80061\*

Parent Item: D2500-1-190

\*D2500-1-190\*

Parent Item Name: Ext'n - I' Beam Tube 4"

Start Date: 09/02/2012

Required Date: 23/02/2012

Start Qty: 80.00

Required Qty: 80.00

Comments: IPP: G 02.09.05 Added DSK 066 KJ/RF  
IPP: H 07.07.06 rev G dwg EC IPP Rev:I as per  
dwg revH DD 10.02.23 verified byEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-190P		Purchased	No			110	Each	0.0000	1	80			

\*D2500-1-190P\*

Ext'n - I' Beam Tube 4"

\*\*

*Leppes (80)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# SPECIFICATION CONTROL DRAWING

## D2500-1-XXX EXTRUSION & D2500-3-XXX EXTRUSION

### NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI  
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

7) WEIGHT: D2500-1 = 0.143 lb/in, D2500-3 = 0.066 lb/in

8) FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE XXX IS CUT LENGTH (EX. D2500-1-190 IS 190" LONG). D2500-1 EXTRUSION MANUFACTURED FROM:

- A) BON L DIE # 897105 -> PREFERRED
- B) CARADON MIDEAST DIE # PAH-28030
- C) CARADON MTL DIE # MH-18868

9) FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG). D2500-3 EXTRUSION MANUFACTURED FROM:

- A) CARADON INDALEX DIE # MS-18867

80061 M.L.S  
12/02/09

RELEASED  
2010-02-02  
MP

H	REDRAW & REFORMAT DWG; CORRECT BON L DIE # TYPO (ZN B8-1), ADD AMS & ASTM MAT'L OPTION (ZN D8-1), TOLERANCES NOW PER CARADON DWG (SHT 2)	CP	09.07.16
G	ADD DIE NUMBERS & 'DIMS IN INCHES' NOTES	PH	07.04.17
F	CHANGE MAT. TO 6061-T6	DS	97.09.29
E	CHANGE MATERIAL TEMPER	DS	96.10.24
D	ADD MATERIAL PROPERTIES	DS	96.10.07
C	ADD D2500-3 WEB	BW	96.04.26
B	CHANGE INTERNAL WEB	DS	96.03.24
A	NEW ISSUE	DS	96.03.19
REV.	DESCRIPTION	BY	DATE
DESIGN	4		
DRAWN	9		
CHECKED	PH		
MFG. APPR.	MP		
APPROVED	MP		
DE APPR.	MP		
DATE	09.07.16		
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA			
DRAWING NO.		REV. H	
D2500		SHEET 1 OF 2	
TITLE		SCALE	
EXTRUSION		NTS	
COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

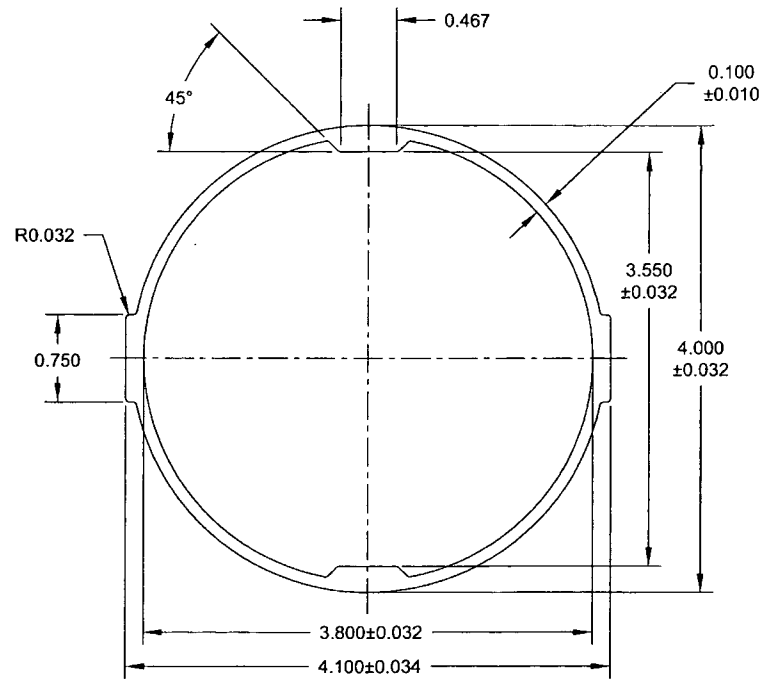
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

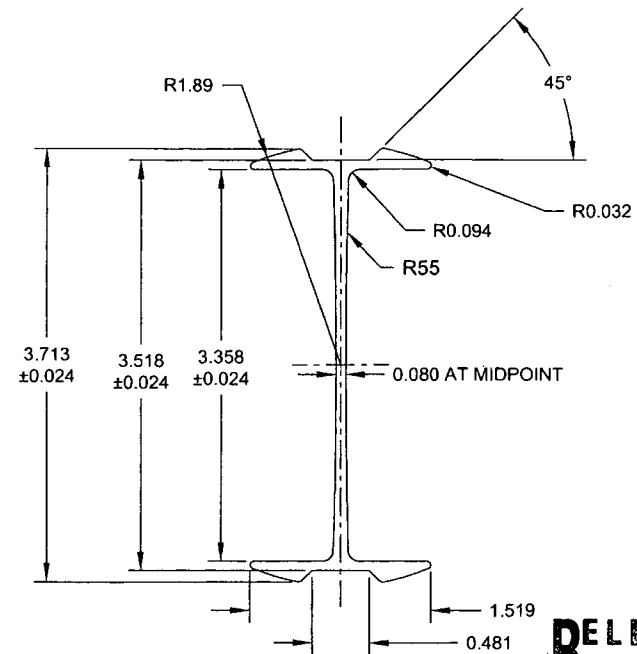
**NOTE:** Date & initial all entries



20061



D2500-1



D2500-3

**RELEASED**  
2010-02-02  
*mb*

DESIGN	<i>[Signature]</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO. D2500	REV. H
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 2	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	EXTRUSION	NTS
DATE	09.07.16	<small>COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16161

Purchase Order Date 2/9/2012

PO Print Date 2/10/2012

Page Number 1 of 2

Order From :

VC-BON001

SIGNATURE ALUMINUM  
1850 CLEMENTS ROAD  
PICKERING, ON L1W 3R8  
CA

Contact Name  
Vendor Phone  
Vendor Fax  
Vendor Account Nbr

800 563 1079  
800 565 8339

Buyer  
Requisition Nbr  
Tax Resale Nbr  
Terms  
Currency  
FOB

Brigitte Golden  
10127-2607  
Net 30  
CAD  
Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

*CX 2/10/12*

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2600-3-120P	Extrusion Round 3" 350	2/29/2012 Yes	80.00 Each	Yours ppd	\$46.6380	\$3,731.04
		<b>Special Inst:</b> As per DWG: D2600 Rev: E B80053 6061-T6 as per (QQ-A-200/8) MINIMUM YIELD TENSILE STRENGTH=40 KSI MINIMUM ULTIMATE STRENGTH= 40KSI MINIMUM ELONGATION = 8% 120" LONG SIGNATURE TOOL DIE # 897122					
2	D2500-1-190P	Ext'n -I' Beam Tube 4"	2/29/2012 Yes	80.00 Each	Yours ppd	\$82.9265	\$6,634.12

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 4

Change Date: 2/10/2012

ACCT# 46024

INVOICING AND COMPANY LOCATION

SIGNATURE ALUMINUM CANADA  
1850 CLEMENTS ROAD  
PICKERING ON L1W 3R8

SHIPPING MANIFEST

MANIFEST DATE / DATE DU BODEREAU  
02-28-12

MANIFEST NUMBER / N° DE BODEREAU  
001693

SALES ORDER NUMBER / N° DE COM  
104583

SHIP TO / EXPÉDIÉ À

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
CANADA

PHONE: 613-632-5200

TERMS / FREIGHT

PP

REFER TO  
THESE NUMBERS ON  
ALL CORRESPONDANCE

REFEREZ-VOUS A CES  
NUMEROUS POUR TOUTE  
CORRESPONDANCE

LOCATION	TRAILER NUMBER / REMORQUE Nombre	SALESMAN / VENDEUR	CREDIT REP / REP DU CRÉDIT	SALES REP / REP. DES VENTES
PIC	PUP	042		G.ATTENBOROU
JOB / FICHIER		FIELD SALES REP / REP REGIONAL DES VENTES		CUST SERVICE REP / REP. SERVICE CLIENTELE
		G.ATTENBOROU		DLB

CUSTOMER ID / ID DU  
CLIENT

ORDER DATE / DE LA  
COM

CUSTOMER PO NUMBER / CLIENT PO Nombre

PO16161

46024

02/10/12

BILL OF LADING NUMBER / NO. DE CONNAISSEMENT

004693

CARRIER / TRANSPORTEUR  
JODEE

G.ATTENBOROU

DLB

ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison
002	2,144	LB		DAA-897105-2	6061 T6		4	2,156	2,068	LB	
	973	KG		D2500-1-190	190.0000 IN			978	938	KG	
	80	PC			Cut(+): 0.1180 Cut(-): 0.0000 Min: 0 % Max: 0 %				80	PC	
						810325 / 132893	1	701	679		26 PC
						810325 / 132894	1	485	463		18 PC
						810325 / 132895	1	485	463		18 PC
						810325 / 132896	1	485	463		18 PC

80

6	3,430	3,289	LB
	1,556	1,492	KG
		158	PC
TOTALS			

Page 2

DATE OF DELIVERY

DRIVER

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.  
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

# CERTIFICATE OF COMPLIANCE

## SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD  
PICKERING, ON L1W 3R8

Cert Date	Cert No.	Sales Order	Page
02/26/2012	5279009	104583	1
Cust PO	B/L No	Lot	Date
PO16161	004693	810325	02/28/12

Sold To		Ship To	
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA		46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	
Item No	Part No	Item Description	Cust Part
002	DAA-897105-2	190" Mill 6061 T6	D2500-1-190
Gross Weight	2,156 LBS		
Net Qty	2,068 LBS		
		80 PCS	4 PKGS
Specification		Die Desc.	
AMS QQA 200/9 + ASTM B221-08			

### Mechanical Tests:

Tensile	Yield	% Elongation	Conductivity	HREW
MPA / KSI	MPA / KSI			
303.5 / 44.0	265.5 / 38.5	10.3	0.0	92

### Chemical Analysis:

SI	FE	CU	MN	MG	CR	ZN	TI	V
0.66	0.28	0.28	0.07	0.91	0.06	0.20	0.02	0.00

876362

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta, Director of Quality Signature Aluminum Canada Inc

